

ABSTRACT

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The present invention is a transmitter system comprising a data modulation unit, a transmitter unit and an antenna. The data modulation unit is configured to generate a digital stream of pulse data which is synchronized with a master clock. The transmitter unit is coupled to the data modulation unit. The transmitter unit is configured to receive the digital stream of pulse data and generates a RF pulse stream for transmission. The antenna is coupled to the transmitter unit and the antenna is configured to transmit the RF pulse stream. The data modulation unit is configured to support pulse streams having different modulation techniques. The different modulation techniques include on-off keying and pulse amplitude modulation. The data modulation unit includes a pulse amplitude modulation module which is configured to vary the amplitude of a modulated pulse. The data modulation unit may also be configured to include a pulse repetition frequency module which is configured to vary the pulse repetition frequency. Further still, the data modulation unit may be configured to include both a pulse amplitude modulation module and a pulse repetition frequency module.